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FIG. 1

Patent

Sep. 19, 2001

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6,122,864

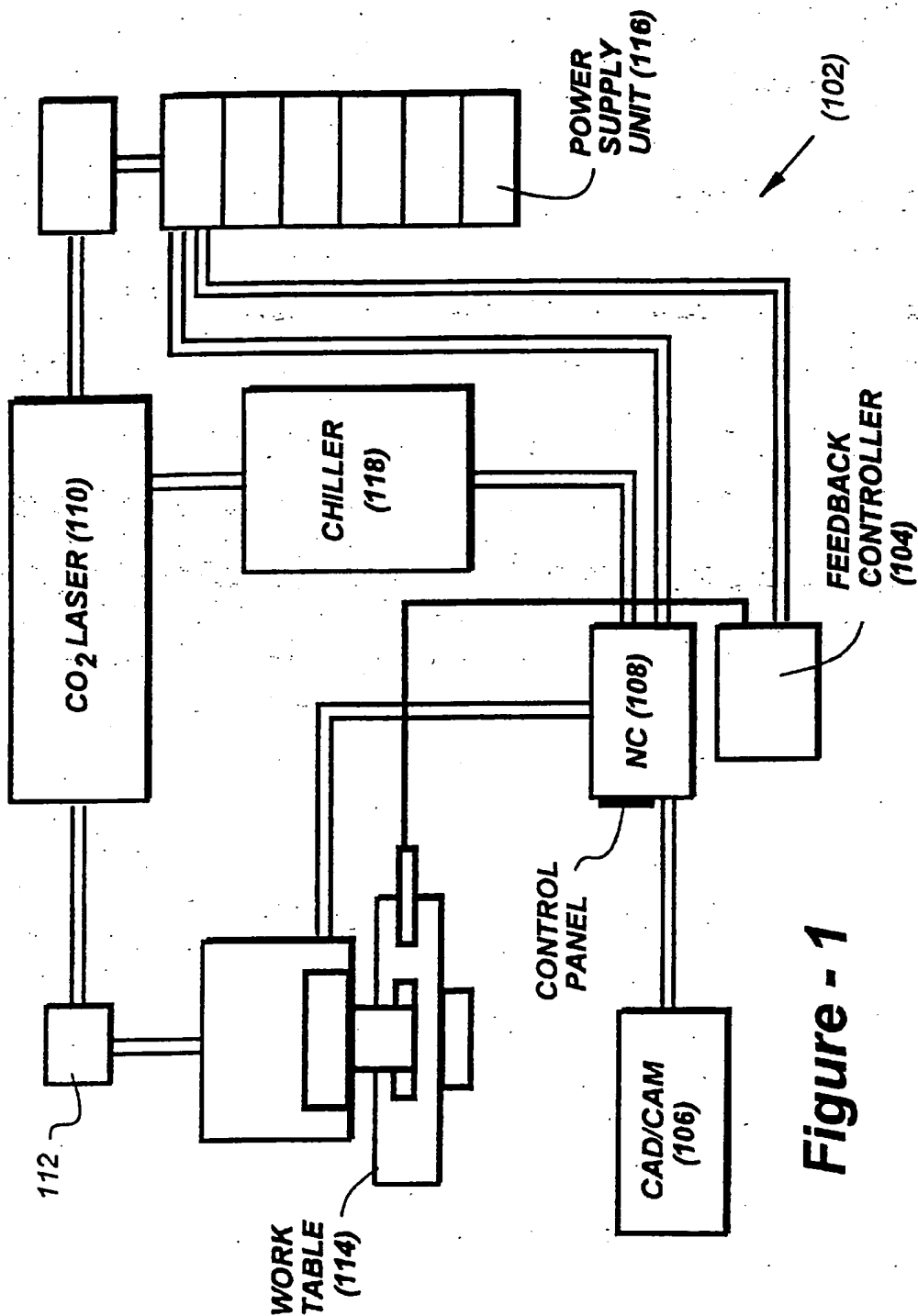
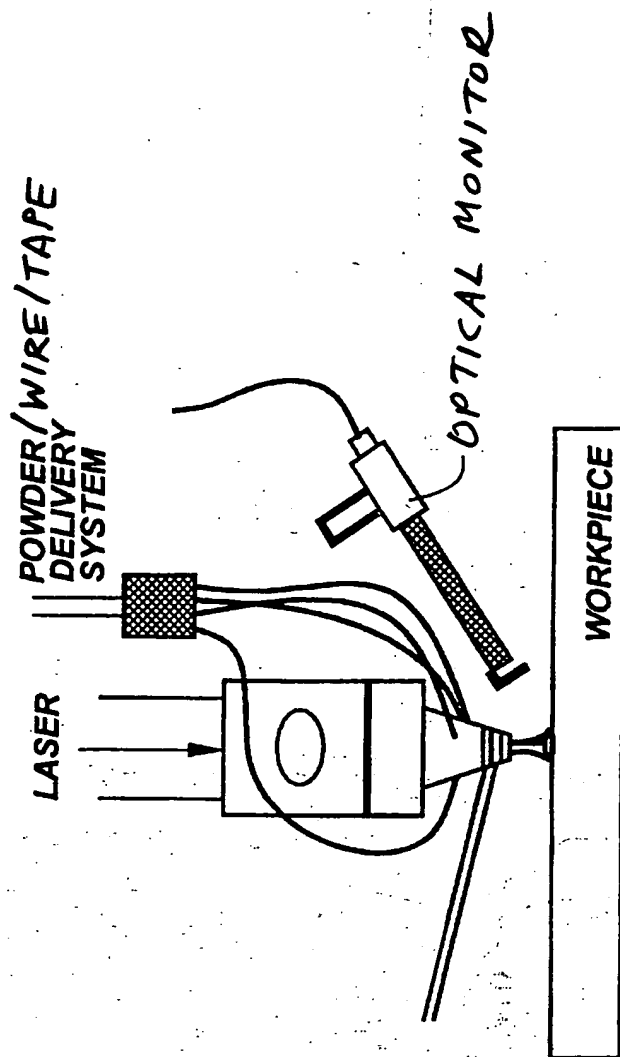


Figure - 1

Figure - 2



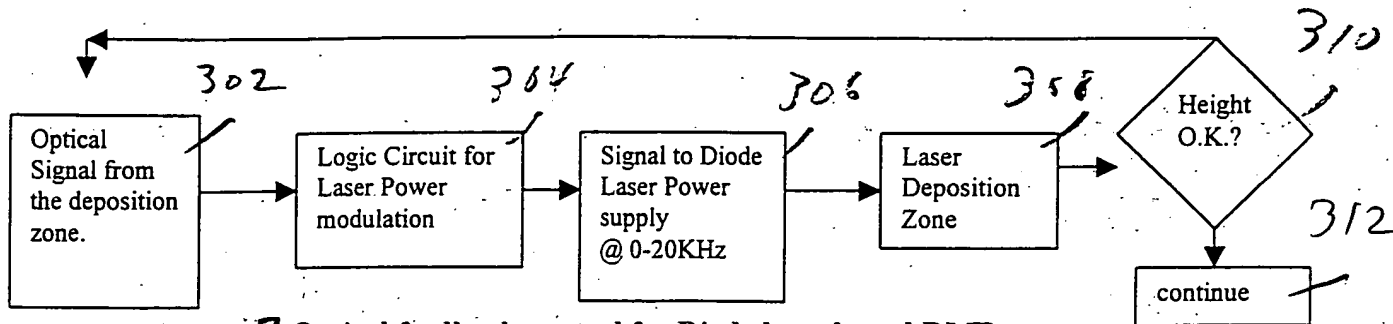
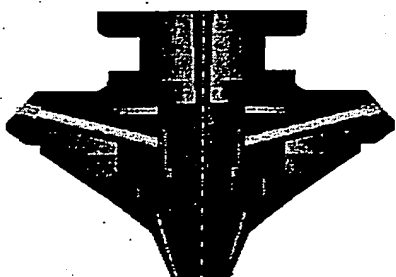


Figure 3 Optical feedback control for Diode laser based DMD



a

DMD Nozzle - 28.0 mm Stand-off



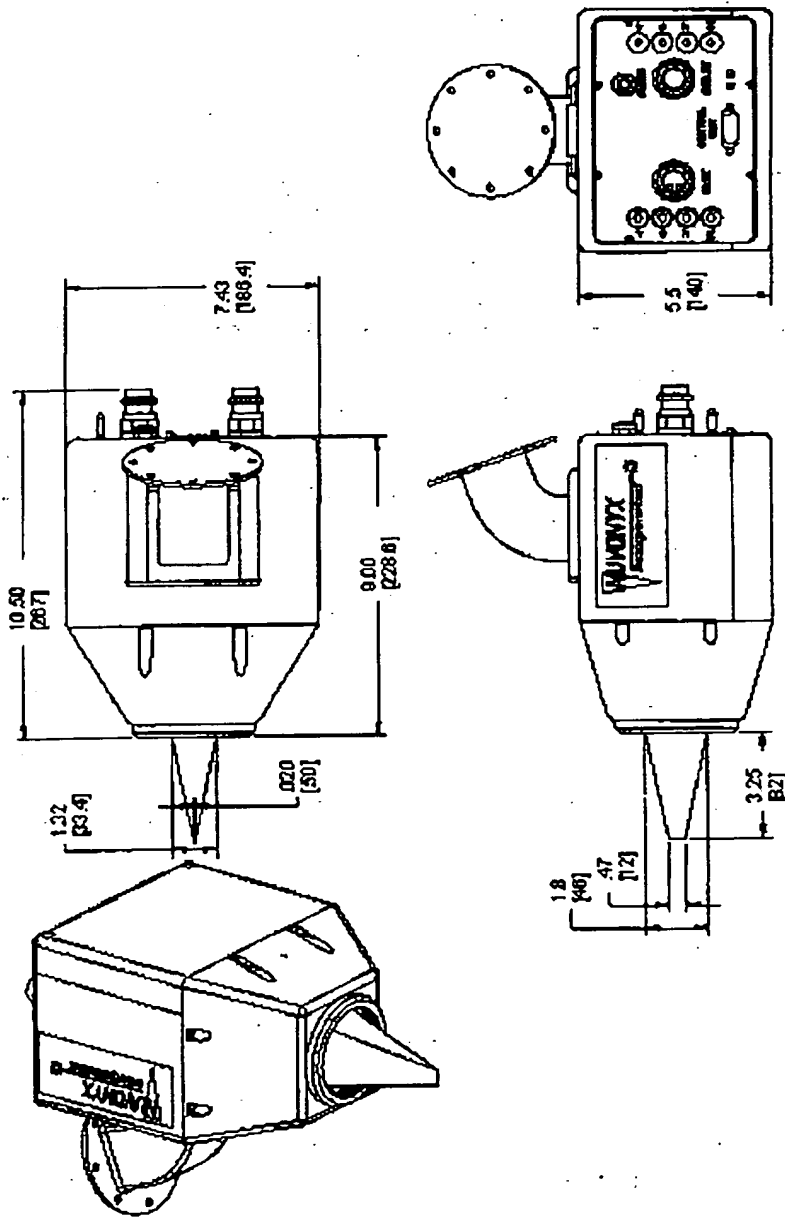
b

DMD Nozzle - 11.6 mm Stand-off

Figures 4a-c: Cross sectional views of the concentric nozzle at various stand-off distances with powder shaping gas

c

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5-61f

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SECTION H-H

0.5 [12]
0.02 [0.5]
0.6 [16]
0.8 [20]

SECTION F-F

0.6 [16]
0.8 [20]
0.3 [7]

SECTION G-G

0.2 [4]
0.02 [0.5]

SECTION E-E

1.0 [24]
0.4 [11]

SECTION D-D

1.1 [28]
0.6 [14]

SECTION C-C

1.3 [32]
0.7 [18]
0.020 [0.5]

ISL-4000L SYSTEM

Section	Dimensions	Working Distance	Power Density
C-C	30mm x 18mm	44mm or 144mm	4000 WATTS 694W CM/SQ
D-D	28mm x 16mm	54mm or 134mm	4000 WATTS 1020W CM/SQ
E-E	25mm x 11mm	64mm or 124mm	4000 WATTS 1515W CM/SQ
F-F	20mm x 7mm	74mm or 144mm	4000 WATTS 2857W CM/SQ
G-G	16mm x 4mm	84mm or 104mm	4000 WATTS 6250W CM/SQ
H-H	FOCAL POINT 20mm x 5mm	94mm	4000 WATTS 66567W CM/SQ

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